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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,104	03/18/2004	Cheng-Qun Gui	081468-0308709	5313
909	7590	02/10/2005	EXAMINER	
PILLSBURY WINTHROP, LLP			KIM, PETER B	
P.O. BOX 10500			ART UNIT	
MCLEAN, VA 22102			PAPER NUMBER	
			2851	

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/803,104

Applicant(s)

GUI ET AL.

Examiner

Peter B. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 10/043,271.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 92004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

Claims 7 and 14 are objected to because of the following informalities: Claims 7 and 14 contain trademark. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Moriyama et al. (Moriyama) (4,798,470).

Moriyama discloses in Fig. 8, a device manufacturing method comprising projecting a patterned beam of radiation (113, 106, 114, 115), onto a target area of a layer of radiation sensitive material (102) on a first surface, the substrate including a second surface opposite to the first surface and including at least one alignment marker (103), the second surface supported by a substrate table (131, 111); coupling light from the alignment marker to an off-axis alignment system (124, 125), aligning the substrate using the system and based on the alignment forming at least one patterned layer on the first surface wherein the alignment is performed without using

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alignment markers on the first surface of the substrate. Moriyama discloses the optical system arranged to transmit an image of the alignment mark at a plane of the first side of the substrate (col. 5, lines 30-45)

Claims 1-4, 8-11, and 15-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Sogard et al. (Sogard) (6,376,329).

Sogard discloses in Fig. 1, 2A and 5A, a device manufacturing method comprising projecting a patterned beam of radiation (7, 20), onto a target area of a layer of radiation sensitive material (30) on a first surface having alignment mark (38), the substrate including a second surface opposite to the first surface and including at least one alignment marker (22, 44), the second surface supported by a substrate table (30); coupling light from the alignment marker to an off-axis alignment system (15), coupling light from the alignment marker (22,, 44) to a location adjacent an edge of the substrate (Fig. 1) or directing the light upward in a direction parallel to an optical axis of a projection system (Fig. 1), aligning the substrate using the system and based on the alignment forming at least one patterned layer on the first surface wherein the alignment is performed without using alignment markers on the first surface of the substrate.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 7, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sogard et al. (Sogard) in view of van Empel et al. (Empel) (6,413,701).

Sogard discloses the claimed invention as discussed above; however, Sogard does not disclose the substrate table made of ceramic material of Zerodur. Empel discloses in col. 2, lines 26-32, substrate table or support made of ceramic material such as Zerodur. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the substrate support made of ceramic material such a Zerodur to the invention of Sogard in order to obtain mechanical and thermal stability as taught by Empel in col. 2, lines 26-32.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter B. Kim whose telephone number is (571) 272-2120. The examiner can normally be reached on 8:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'P.B. Kim', with a stylized flourish at the end.

Peter B. Kim
Primary Examiner
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February 5, 2005